

Amendment under 37 C.F.R. § 1.111
Application No. 10/827,311
Attorney Docket No. 042348

AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions of claims in the application.

Claim 1 (Withdrawn): A method of centering a log comprising the steps of rotating a log about a preliminary axis, measuring the contour of the log at intervals of desired rotation angles, and calculating, based on the measured contour data, a optimum yield axis suitable for the peeling of the log and a maximum radius of rotation of the log that corresponds to said optimum yield axis, wherein:

the contour of the log that is used for calculating the optimum yield axis and the contour of the log that is used for calculating the maximum radius of rotation are measured separately, wherein the contour for calculating the optimum yield axis is obtained in a fixed-point manner by measuring the log at a plurality of desired measurement points disposed at appropriate intervals along the axis of the log, whereas the contour for calculating the maximum radius of rotation is obtained in a comprehensive manner by measuring the log in a plurality of desired measurement sections allocated along the axis of the log virtually without any gaps therebetween.

Claim 2 (Withdrawn): The method of centering a log according to claim 1, wherein the contour for calculating the optimum yield axis of the log is measured at at least two measurement points near each end portion of the log.

Amendment under 37 C.F.R. § 1.111
Application No. 10/827,311
Attorney Docket No. 042348

Claim 3 (Withdrawn): The method of centering a log according to claim 2, wherein the contour for calculating the optimum yield axis is measured additionally at one measurement point near a center portion of the log.

Claim 4 (Currently Amended): An apparatus for centering a log, comprising:

a pair of preliminary rotating axles disposed on either end face of a log that is supplied to a predetermined preliminary axis location, said preliminary rotating axles being adapted such that they can be brought closer to and away from each other, with at least one of the axles being rotated;

a rotation angle detector for detecting the angle of rotation of the rotating axles;

beam reflection scanners disposed at a plurality of desired positions along the axis of the log at appropriate intervals and near the periphery of the log that is supplied to the preliminary axis location, such that the detection direction of the beam reflection scanners ~~distance detectors~~ are oriented toward the axis of the preliminary axles;

contact-swinging detection members disposed in a plurality of desired sections along the axis of the log, each member comprising a base portion pivotally supported by a support axle positioned near the periphery of the log supplied to the preliminary axis location, and a tip portion to which a detection element is attached such that the detection elements are arranged along the axis of the log virtually without any gaps therebetween and are adapted to be in contact with the periphery of the log;

Amendment under 37 C.F.R. § 1.111
Application No. 10/827,311
Attorney Docket No. 042348

a plurality of swing angle detectors for individually detecting the amount of swinging of each detection member; and

a centering computation mechanism for calculating [[an]] optimum yield axis suitable for the peeling of the log based on a detection signal supplied from the rotation angle detectors and contour data supplied from the beam reflection scanners ~~distance~~ detectors, and for calculating a maximum radius of rotation of the log that corresponds to the optimum yield axis based on contour data supplied from the swing angle detectors in addition to the detection signal from the rotation angle detector and the contour data from the beam reflection scanners ~~distance~~ detectors.

Claim 5 (Original): The apparatus for centering a log according to claim 4, wherein the beam reflection scanners are disposed at at least two positions near either end portion of the log.

Claim 6 (Original): The apparatus for centering a log according to claim 5, wherein the beam reflection scanner is additionally disposed at one position near a center portion of the log.

Claim 7 (Currently Amended): The apparatus for centering a log according to claim 4, 5 or 6, wherein the contact swinging detection members comprise a planar detection element.

Amendment under 37 C.F.R. § 1.111
Application No. 10/827,311
Attorney Docket No. 042348

Claim 8 (Currently Amended): The apparatus for centering a log according to claim 4, 5 or 6,
wherein the contact swinging detection members comprise a cylindrical detection element.